STATEMENT OF WORK

Environmental Services Assistance Team (ESAT)

1. SCOPE The Contractor shall provide technical, analytical and quality assurance (QA) support, primarily to the U.S. Environmental Protection Agency (EPA) Superfund Program, other EPA programs, Federal and state agencies, and tribal organizations to facilitate identification, assessment, regulation, and remediation of environmental hazards which may pose a threat to human health or the environment. These requirements necessitate that EPA gather and/or generate information on which to base administrative, regulatory, and/or human health decisions. The Contractor shall perform the following task.

Task Area I - Analytical Support
Task Area II - Data Review
Task Area III - Analytical Logistical Support
Task Area IV - Quality Assurance/Quality Control (QA/QC) Support
Task Area V - Other Task-Related Activities

The contractor shall providing technical, analytical, and QA support to the Office of Solid Waste (OSW) and Office of Superfund Remediation and Technology Innovation (OSRTI) to assist in meeting the requirements and objectives of the following laws: The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601 et seq. (1980); The Clean Water Act (CWA), 33 U.S.C. §§ 121 et seq. (1977); The Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq. (1976); The Safe Drinking Water Act , 42 U.S.C. §§ 300f et seq. (1974); the Clean Air Act, 42 U.S.C. §§ 7401 et seq. (1970);and the Toxics Substances Control Act (TSCA), 15 U.S.C. §§ 2601 et seq. (1976); Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. §§ 636 et seq. (1947), (1972) & (1988). This support is also necessary to implement the National Oil and Hazardous Substances Pollution Contingency Plan (the NCP), 40 C.F.R. Part 300 and to provide assistance to Federal Agencies involved in counter-terrorism environmental hazards identification and remediation activities, as required by various Federal Response Plans (FRPs) (http://www.fema.gov/rrr/frp/).

The contractor shall submit all work products for review and approval by appropriate government personnel prior to preparation and issuance in final, in accordance with the terms and conditions of the contract.

2. BACKGROUND The Superfund Program has historically relied on the EPA Contract Laboratory Program (CLP) to perform the majority of routine analytical services (RAS), and the Regional EPA Laboratories including the Environmental Services Assistance Team (ESAT) to provide other analytical services in support of Agency hazardous waste site projects, and other environmental monitoring.

The Field and Analytical Services Teaming Advisory Committee (FASTAC) was formed by the Contracts 2000 Contracting Initiative in order to develop and implement a strategy for acquiring analytical services to support the needs of the Regional Superfund Programs. The FASTAC strategy for acquiring analytical services instituted a "tiering" process where the Regional Laboratory including ESAT are the first priority. However, the FASTAC strategy emphasizes utilization of the CLP as the most preferred for RAS analyses.

Because of the need for both routine and specialized non-routine analytical services, and the emphasis on environmental data quality assurance under a mandatory EPA Quality System, the government is seeking to fully optimize the use of available resources within Regional Laboratory facilities. An ESAT may be utilized in each region to perform sample analyses, analytical and field support services, QA support, data review and validation, technical information and electronic data transfers, and other support functions for the EPA.

In addition, OSRTI seeks to use the Triad dynamic work strategy approach (http://www.triadcentral.org) for design and implementation of sampling programs intended to support Superfund site decisions. ESAT may be utilized in systematic planning or review of dynamic sampling strategies; use of rapid sampling and real-time measurement technologies; rapid interpretation of results generated by the use of these tools; and/or, perform data quality assurance and management activities.

3. TASK DESCRIPTIONS

The contractor shall provide analytical chemistry, biological, and field sampling and analytical support to EPA at the Agency's regional laboratory facilities and at specified field locations using one or more EPA furnished mobile laboratories and/or field instrumentation.

The contractor shall accomplish all tasks in strict accordance with the requirements specified in WAs issued by the CO. WAs may specify or reference Standard Operating Procedures (SOPs) or analytical methodologies for accomplishing the work required by the WA, as well as QA/QC, document control, chain-of-custody, and deliverables requirements. Also, EPA may issue Technical Direction (TD) in accordance with the contract clause requirements for clarification of specific procedures or methodologies that shall be performed by the contractor to accomplish any work authorized by WAs.

The contractor shall comply with health and safety, environmental, waste handling, and other applicable rules and regulations, established by EPA regional laboratories and other regulatory agencies while performing under this contract.

The Contractor shall perform work in accordance with applicable SOPs, analytical methods, QA/QC documents, and laboratory work rules, as specified in each Task Order which will be provided by EPA either in hard copy or electronic format.

TASK AREA I: ANALYTICAL SUPPORT

The contractor shall provide chemical, biological, field sampling and analytical support to EPA at the Agency's Regional laboratory facilities and at specified field locations using mobile laboratory(ies) and/or field-based analytical methods.

The Contractor shall analyzed and/or collect samples including sample matrices such as solids, dust, particulates, ash, gases, wipes, water, waste water, liquids, soil, tissue, vegetation, sediments, air, wastes, Dense Non-Aqueous Phase Liquids (DNAPL), Non-Aqueous Phase Liquids (NAPL), leachates, and biota. Samples may be from known or suspected hazardous waste sites, spill events, and/or terrorism events and may potentially contain hazardous/extremely hazardous materials at high concentrations. The contractor shall take appropriate measures regarding the potential hazards associated with the handling and analyses of samples.

A. Laboratory Sample Analyses:

The contractor shall analyze environmental samples consisting of a wide variety of media for organic and inorganic chemical contaminants including, but not limited to, pesticides/PCBs, volatiles, and semi-volatile organic compounds; cyanide, metals, nutrients, and other inorganic analytes; air contaminants; biota; and any other materials which may be found in environmentally-degraded locations and/or which may be utilized in terrorist activities against the general public. Sample analyses shall include screening, qualitative and/or quantitative analysis, as well as sample preparation, extraction, digestion, distillation, measurement, data reduction and reporting, as applicable.

The contractor shall:

- Analyze environmental samples for organic chemical compounds employing gas chromatography (GC), gas chromatography/mass spectrometry (GC/MS), gas chromatography/high resolution mass spectrometry (GC/HRMS), high pressure liquid chromatography (HPLC), and other techniques. This may include the performance of quantitative and qualitative analysis of tetra- through octachloro-dibenzodioxins and dibenzofurans, employing selected ion monitoring (SIM) GC/MS, and other techniques;

- Analyze environmental samples for inorganic chemical elements/compounds employing inductively coupled plasma-atomic emission spectroscopy (ICP/AES) and inductively coupled plasma-mass spectrometry (ICP/MS); flame atomic absorption (AA), graphite furnace (GFAA), and cold vapor AA spectroscopy, ion chromatography, auto analyzers, and other wet or physical/chemical and instrumental techniques;

- Create and maintain log books, laboratory notebooks and worksheets in accordance with good laboratory practices and Regional policies, and complete all documents and records as required by the analytical methods and SOPs as described in the WA. The contractor shall archive samples, extracts and data in accordance with regional SOPs, various regulated, approved, and/or established methods (e.g., EPA, ASTM), and policies as

directed in individual WAs. All electronic data shall be generated and archived in accordance with the protocols outlined by the Agency and Region, as well as any future revisions;

- Manage and track the progress of completion of each analytical project in accordance with Regional SOPs and directions contained in the WAs;

- Analyze Performance Evaluation (PE) and other QA-related samples; evaluate instrumentation, scientific software, and methodologies; prepare analytical standards; review, prepare or revise analytical procedures and SOPs;

- Sample analysis may include microscopic detection if Asbestos fibers as required by the analytical methods and SOPs described in the WA.

B. Biological Support:

The contractor shall perform biological testing on hazardous waste, water, soil, sediments, tissue, vegetation and other media, employing aquatic and sediment toxicity, bioaccumulation, seed germination, microbial, viral and other biological tests. The contractor shall also conduct biological sampling and perform biological assessments, e.g., biodiversity studies, bioaccumulation studies, biological toxicity testing, specimen preparation and examinations, biological and ecological risk assessments, bacterial and viral assessments and Microtox testing. Biological assessments may be performed at fixed or mobile facilities. Accordingly, the contractor shall:

- Collect the media and/or organisms for examination, processing and/or testing. This may require electro fishing for the collection of fish and other techniques for the collection of specimens in support of ecological risk assessments;

- Develop and implement a site work plan detailing required field activities, including sample collection and testing, test organism identification and examination, sample preparation and packaging, chain-of-custody requirements, and decontamination procedures;

- Evaluate chemical parameters such as basic water quality measurements and chemical concentrations in various media, total organic carbon, acid volatile sulfides/simultaneously extracted metals, and grain size to better assess results of the toxicity tests and potential for ecological risk. The data required to be evaluated may be derived from samples obtained in sampling performed under this task or that are split for chemical analysis;

- Perform activities necessary for the collection, culturing and maintenance of biological test organisms to assure an adequate, viable supply of the organisms for biological/microbiological/viral testing at the EPA Regional laboratories. The contractor shall obtain new test organisms in order to maintain existing laboratory cultures;

- Perform culturing activities in accordance with established, approved, and/or regulated methodologies and/or laboratory SOPs specified in WAs;

- Prepare forms and maintain a laboratory log book or other specified documentation for recordings including QA/QC documentation required by the SOPs and/or analytical methodologies which may be in electronic format;

- Perform routine maintenance and daily calibration of laboratory instruments;

- Perform acute and chronic reference toxicity tests to assure quality test organisms for site specific toxicity testing;

- Repeat any biological tests that do not meet the designated test acceptability requirements set forth in the established, approved, or regulated methodologies and for SOPs. If any modifications to the SOPs and/or analytical methodologies are required, the contractor shall submit the proposed written revisions of the SOPs and/or analytical methodologies to the Project Officer (PO) and WAM for approval prior to implementing.

The contractor shall utilize techniques such as Polymerase Chain Reaction (PCR) instrumentation and other emerging and conventional technologies for the detection, identification, and characterization of microbes in various media. This may require the development and evaluation of protocols and SOPs for the utilization of such instrumentation and technologies including the technical evaluation and assessment of resulting data.

C. Field Analytical Support:

The contractor shall provide staff to maintain and/or operate one or more mobile analytical laboratories meeting stated government specifications for designated Regions. The mobile laboratories are detailed to sites throughout each specific Region, as assigned by TDF, to provide Field Analytical Support Program (FASP) activities and/or field support for programs providing resources. FASP analyses usually require quick or rapid-turn-around, may be performed at designated on-site field locations in the mobile laboratory using stationary analytical instrumentation, or using portable; and/or, hand-held chemical or physical testing instruments; and/or at the Regional laboratory.

The contractor shall perform field chemical and physical analyses using portable such as immunoassay test kits, X-ray fluorescence, GC/PID, ion probes; in situ, analytical and sampling approaches (e.g., Membrane Interface Probe, Laser Induced Fluorescence, Direct Sampling Ion Trap Mass spectrometer) and mobile (transportable) instruments (e.g. GCs, GC/MS, ICP/AES, AA, GFAA, Mercury analyzers, and other electro metric instrumentation).

The contractor shall design and implement analytical plans that will develop and meet the data quality objectives (DQOs) for the decision needs of a specific field analytical project. The contractor shall, when required, provide written recommendations for implementation of the

analytical plans designed. The contractor shall, when required, perform analytical activities, such as sample preparation, extraction/digestion, clean-up, instrument data acquisition, data verification, electronic data transfers, QC evaluation, and reporting. Information about field analytical and sampling technologies, may be found at http://fate.cluin.org.

The contractor shall:

- Participate in up-front planning meetings to help the project team develop data collection strategies and dynamic sampling plans that identify and utilize the best sampling and analytical tools and approaches to meet site-specific decision needs and criteria. These criteria include both technical, instrument-related criteria, as well as practical considerations such as time constraints, project budgets, and acceptable levels of uncertainty (both sampling and analytical).

- Perform Demonstrations of Methods Applicability (DMAs) or pilot testing which may be necessary to establish project specific decision levels. (http://www.triadcentral.org/gloss/dsp_glossterm.cfm?glossid=154)

- Collect samples and perform other ancillary tasks (e.g., sample preparation, packaging, shipment, transport and documentation preparation) where ESAT is providing support under this or other task areas. The contractor may be required to operate specialized field equipment, (e.g., the Geoprobe; EPA-owned drill rigs, boats, and Global Positioning Systems (GPS); air sampling, monitoring and analysis equipment; and purging pumps used at monitoring wells);

- Mobilize and demobilize equipment for field use, drive the mobile laboratory to and from field sites, set up and obtain utilities and supplies for vehicles, perform routine maintenance and emergency repair of equipment, and general upkeep of all assigned equipment and vehicles. In addition, the contractor shall perform equipment decontamination and glassware cleaning and preparation necessary for the field operation;

- Develop and implement a site work plan detailing required field activities, including sample collection and analysis, sample preparation and packaging, chain-of-custody requirements, decontamination procedures and all required documentation;

- Perform sample analyses to include screening of samples in the field, field and laboratory qualitative and/or quantitative analysis, as well as sample preparation, extraction, digestion, distillation, measurement, data reduction and reporting, as applicable;

- Provide field sampling support which includes:

  1. QA/QC sampling and studies at all sites including Superfund sites and/or other programs, where EPA is authorized to perform field activities; and/or

_____2. Sampling associated with field analyses; and/or

3. Sampling and field analysis as described in this section; and/or

4. Sampling associated with biological testing and assessment support specified above.

D. Field Warehouse Operations Support:

The contractor shall perform the following activities required for the operation of the field warehouse, as directed:

- Receive and log requests for field equipment. Requests will be provided by designated EPA personnel, contractors, and other official users. Prepare equipment request forms; acquire EPA approval to release the equipment; define operational conflicts; supply all necessary paper work and operating instructions; and prepare equipment for pick-up, shipment, or delivery. Clean and return ice chests to the appropriate locations or originators. Keep the equipment storage room and field warehouse area neat and orderly in accordance with appropriate approved SOPs. Inform the WAM and/or PO when expendable supplies have reached the minimum stock levels defined by the WA and require replacement.

- Receive and log-in returned equipment. Evaluate returned items for cleanliness and operational defects. Clean and restock the returned items in accordance with SOPs.

- Maintain/update field equipment usage and readiness records. Equipment usage and status shall be tracked by completing calibration records, log books, equipment check-out forms, and updating databases at a minimum.

- Maintain an Equipment Readiness Schedule which would require periodic calibration and other checks to assure that field equipment is kept in a "ready state" for use. Where equipment is found to be nonfunctional, the contractor shall appropriately label the equipment and notify the WAM and/or PO. The Contractor shall prepare any equipment in need of repair for shipment.

- Prepare SOPs for completing equipment readiness and calibration procedures for use by ESAT personnel as approved by EPA.

- Maintain and update SOPs for each unit or type of equipment.

- Maintain manuals, instructions, and other documents in support of field equipment. This shall include assuring that all applicable supporting documentation is available for the field equipment.

E. Laboratory Support Functions:

The contractor shall perform the following laboratory support functions:

- Routine analytical laboratory instrumentation and/or equipment (including associated computers) set up, preparation, testing, and maintenance activities. This shall also include performing routine maintenance tasks required for proper operation of analytical equipment as described in the instrument operational manual. Instrumentation may include, GCs, GC/MS, HPLC, ICP/AES, ICP/MS, GFAA, AA flame, IC, auto-analyzers, pH meters, balances, filtration apparatus, distillation equipment, continuous liquid-liquid extractors, or any other instrumentation assigned to ESAT to perform analysis on a routine basis. Such instrumentation shall be identified on a Regional basis;

- Set up and maintenance activities necessary to perform the analysis of assigned samples;

- Laboratory glassware washing in accordance with rigid, Regional QA/QC requirements specified in WAs and referenced SOPs. The contractor shall complete all washing, drying and preparation activities and place clean glassware in the designated storage areas within time frames that assure an adequate inventory of clean glassware. Glassware cleaning, washing, and soaking procedures may require the handling and/or use of concentrated and/or diluted acids (e.g., hydrochloric acid, sulfuric acid) or bases (e.g., sodium hydroxide, hydrogen peroxide). The use and operation of commercial dishwashers and hot-air ovens may be required;

- General clean up activities including bench tops; instrument tops; and fume hood cleaning to assure that all glassware washing areas, and other areas where the contractor performs work, are maintained in a clean and orderly manner;

- Sample custodial duties, such as:

  1. Accept and log in environmental samples arriving at the Regional Laboratory.

  2. Enter sample information into an electronic and hardcopy Laboratory Information Management System (LIMS) and generate sample tracking sheets for distribution to analyst in accordance with WA instructions and SOPs.

  3. For each analytical batch analyzed, consolidate electronic and hardcopy analytical data into a single electronic and/or hardcopy file and distribute, as directed by WA.

  4. Maintain, update, and track analytical batches scheduled for analyses.

- Perform support activities relating to the disposal of environmental samples in accordance with the sample disposition and disposal SOPs. These activities include the storage of analyzed samples in the appropriate refrigerators, tracking of samples due for disposal, obtaining the reports/results of the analyses for the samples to be disposed, review results

to determine type of waste and the appropriate mechanism for disposal, physical transfer of used samples and waste generated by the preparation and analyses of samples to the appropriate containers, completing the information on the sample disposal sheets after sign-off, and notification to the designated EPA personnel that samples are ready for disposal;

- File reports and project folders received from laboratory chemists in the location designated by the WAM and/or PO. The contractor shall archive project folders and retrieve files, as necessary;

- Develop and maintain analytical methods and procedures, including laboratory SOPs and/or analytical methodologies. The contractor may be required to develop SOPs for new analytical methods, analytes, or matrices, as well as review, evaluate, and revise existing SOPs and/or analytical protocols/procedures.

- Perform the following technical support functions:

  1. Test and evaluate instrumentation, related software, and analytical procedures and methodologies. The contractor shall, when required, verify acceptable performance of analytical methods and instrumentation and the adequacy of QA/QC procedures;

  2. In a case where existing Government-approved test methods cannot be employed in the analysis of a sample, the Contractor shall prepare a testing plan for the approval by the Government. In performing the analysis, the Contractor shall not deviate from the approved plan without the express consent of the Government. Following the successful completion of the non-routine analysis, the contractor shall deliver a report describing the actual processes used. The report must discuss the viability of these procedures for performing similar analyses in the future and provide alternative procedures that might be employed taking into account such factors as timeliness, cost, and effectiveness;

  3. Analyze PE and other QA-related samples in accordance with SOPs; respond to on-site audits.

  4. Prepare and ship QA/QC samples;

  5. Perform safety-related laboratory support tasks, such as checking of bench hood air flow, laboratory eye washes, safety showers and other safety equipment and requirements in accordance with Federal, state, and local health and safety requirements.

  6. Perform environmental compliance and pollution prevention tasks in accordance with federal, state, and local requirements (e.g. chemical inventory, solvent recycling, collection and preparation of laboratory generated waste for

disposal).

F. Deliverables:

The contractor shall submit the data obtained in performing the activities under this task area; reports necessary to present the data; and other required documents and reports, applicable to each specific WA. The deliverables must be submitted in the format and time frames specified in the WAs, TDF, or referenced SOPs for the specific activity.

Deliverables for sample analytical tasks must include a complete data package with appropriate electronic files which includes any or all analytical and QC documentation as defined by the WA; and/or, SOP; and/or, analytical methodologies. The contractor shall make any required changes and resubmit the data package in accordance with the WA/TDF. This may require the provision of data into relational databases to facilitate further interpretation and use of the data.

Deliverables for other laboratory support functions shall include a report of results with supporting data, draft SOPs and/or analytical methodologies, and/or completed data forms and logs, as applicable to the specific tasks and as detailed in the WAs.

Deliverables for field analytical support and field biological support must include a site work plan or other documentation of readiness, submitted prior to the initiation of any field activities, as required in the WA. Upon completion, the contractor shall submit a complete data package which includes any or all analytical and QC documentation, including related forms; a site report, detailing the work performed; field notes; and other necessary documentation, in accordance with the WAs and referenced SOPs and/or analytical methodologies.

Deliverables for laboratory biological activities must include a complete report of results with supporting data, in accordance with WAs, referenced methods, and referenced SOPs and/or analytical methodologies.

The Contractor shall, when required, submit electronic storage media (e.g., GC, GC/MS) for a specific case or period of time in order to accomplish electronic media or data tape audits.

TASK AREA II: DATA REVIEW

The contractor shall perform technical review of organic, inorganic, biological, dioxin, hazardous materials, and other analytical data to assess data quality and completeness. Data for review and/or validation may be provided in electronic format; and/or, transferred via web-based internet electronic data format; and/or, via other electronic media.

A. Data Validation:

The contractor shall perform data review activities required to validate data from the

following sources: CLP, Regional laboratory contracts, EPA Regional Laboratory, potentially responsible parties (PRPs), EPA field contractors, and other sources. This must include data review for the regional data validation oversight program. The contractor shall not conduct data validation of its own data generated under this contract or from any other of the contractor's own analytical laboratories or subsidiaries.

The contractor shall provide a QA data review of data packages and electronic deliverables (e.g., diskettes, CD-ROM, Data Assessment Tools (DAT), Staged Electronic Data Deliverable (SEDD) http://www.epa.gov/superfund/programs/clp/sedd.htm, internet web-based, other electronic format) using the following documents and requirements:

- CLP, Regional data review SOPs, and National and Regional Data Validation Functional Guidelines /Guidance (e.g. may include dioxins and explosives);
- CLP Routine Analytical Services (RAS) contract protocols and performance requirements;
- Streamlined or tiered data validation protocols provided by the Agency;
- Individual Regional laboratory contracts protocols and performance requirements;
- Regional sampling/project plans;
- Regional Performance Evaluation (PE) program guidance;
- Work Assignment requirements.

The contractor shall examine the package to determine if required data and documentation are present. If information is missing, the contractor shall immediately notify the WAM/PO, through an interim deliverable listing the information required to complete the data validation.

B. Electronic Data Review/Validation:

The contractor shall perform electronic validation of deliverables (e.g., diskettes, CD ROM, DAT, SEDD, internet, or other electronic media) or data packages using/resulting from electronic validation assessment software provided by the EPA, in accordance with the Regional SOPs, WA and/or software documentation. The contractor shall follow the procedures described in the software program and SOPs to validate data electronically on organic/inorganic data packages designated for electronic assessment/validation.

Upon completion of an electronic validation, the contractor shall submit the required data validation report (electronic or hard copy) to the WAM/PO within the time frames specified in WAs. When revisions or corrections are required, data validation reports will be returned to the contractor with written directions indicating the necessary revisions/corrections in accordance with a TDF. The contractor shall make the necessary revisions/corrections and re-submit the data

validation report to the WAM/PO. The contractor shall implement an electronic data validation tracking system if required under the WA. The contractor shall transfer electronic data as specified in the WA.

C. Collection and Tabulation of Data:

The contractor shall produce reports summarizing statistical information concerning data reviews. Typical statistical information covered by such reports shall include numbers of samples for which data were rejected or estimated and numbers of rejections/estimations by fraction (e.g., volatiles, semivolatiles, Pesticide/PCBs, dioxins, metals, cyanide, or other parameters). The contractor shall statistically quantify the reasons for qualification or rejection of data. Typical factors to quantify the data may include: surrogates, holding times, calibration, contamination, identification, internal standards, temperature/preservation, % moisture, volatile head space, matrix spike recovery, and duplicates audit.

D. Deliverables:

For all data review tasks, the contractor shall prepare and submit to the WAM or PO a report, detailing results of the data review. When revisions or corrections are required, the WAM or PO will return the data package to the contractor with written instructions through a TDF, indicating the necessary revisions/corrections. The contractor shall make the necessary revisions/corrections and re-submit the data package to the WAM or PO.

TASK AREA III: ANALYTICAL LOGISTICAL SUPPORT

The contractor shall provide analytical logistical support to field, analytical, quality assurance, and Regional Sample Control Center (RSCC) activities as specified in WAs. The contractor shall:

- Exchange information based on EPA written procedures, with CLP and Non-CLP users;
- Coordinate/facilitate tracking the flow of CLP and other analytical data/documents;
- Manage, track, and maintain sample and QA-related data, chain-of-custody documentation, sample log-in data, and task-related documents;
- Receive and track various sample analyses projections;
- Inventory the Complete Sample Delivery Group File (CSF). (This does not include contacting contract laboratories.);
- Maintain databases (input/output) related to analytical logistics, such as the EPA non-CLP analytical tracking database and the individual Regional LIMS;

- Track, package, and ship samples; return coolers;

- Track requests and analytical information on RAS performed by CLP and other external analytical sources;

- Receive and enter Regional Laboratory information into a Regional database system (e.g. LIMS) to support sample scheduling and tracking of internal analytical requests, laboratory assignments, sample shipments, and data review logistics;

- Notify field contractors of laboratory assignments;

- Generate and/or distribute chain-of-custody, traffic report forms, electronic field sheets and sample tags. This may include using EPA-developed sample tracking software, (e.g., Forms II Lite); and any other future tracking software including revisions:

- Distribute data packages to data validators;

- Acquire and track status of samples from receipt of request, sample analysis, data validation and archiving of data. Track status of data packages to include due dates, lateness, data validation reports, missing sample data, PE samples and field QC samples.

- Archive/retrieve analytical and QA-related data. Prepare data packages, reports, and other documents for storage in accordance with EPA requirements and SOPs at EPA facilities which may include EPA-acquired off-site facilities. Physically lift, move, and transport boxes of data and/or reports to EPA off-site facilities for data storage/archiving purposes as needed. Prepare boxes for archiving in accordance with Regional SOPs; and/or requirements for archiving to the Federal Records Center (FRC).

- Receive and track data, documents, and responses from Regional CLP and non-CLP laboratories. Distribute Regional CLP and non-CLP laboratory data and related documents, electronically when possible.

- Provide computerized drafting support to field sampling and analysis investigations. Process and enter analytical data and its associated location information into a GIS; or EMAP www.epa.gov/emap; or other environmental system, necessary to display analytical data source maps and tables. Generate source maps using ARCINFO, AUTOCAD, and/or other commercially available software.

Deliverables and Schedule

The contractor shall prepare and submit reports associated with the above list of tasks as per appropriate Regional WA/SOPs. These reports shall include the following:

- Weekly reports indicating data packages processed and status

- Non-CLP tracking reports

TASK AREA IV: QA/QC SUPPORT

A. Preparation and Review of Biological and Human Health Risk Assessments:

The contractor shall prepare and/or review biological and human health data and assessments, including ecological risk assessments, biodiversity assessments, human health risk assessments, and endangered species assessments. The contractor shall research and review applicable regulations, guidance documents, data calculations, species-specific reference toxicity values, literature, and database references, as well as statistical analysis of data. Site visits and meetings may be required to obtain the necessary information to complete the required review or assessment.

B. Preparation and Review of QA Project Plans and Sampling and Analysis Plans:

The contractor shall review QA project and/or sampling and analysis and other work plans, and related documents, and provide technical comments to EPA. The contractor shall prepare QA project and/or sampling and analysis plans for EPA, other governmental, and ESAT-conducted projects only, but not for another contractor's projects. This may require participation in up-front planning activities that precede the mobilization to the field and collection of initial samples. The up-front support may include initial and continued development of certain models, problem statements, decision goals, and the identification of sampling variables relevant to project decisions.

The contractor shall select alternate study designs, develop hypothesis testing and uncertainty analysis, and perform data assessment from both a graphical and statistical standpoint. The statistical support shall include various techniques such as geostatistics, kriging and the design and analysis of spatial and temporal sampling, and modeling development from mutilvarients. The support must be consistent with how EPA is implementing their QA program from a data collection standpoint as referenced in the following documents: EPA QA/R-5: EPA Requirements for Quality Assurance Project Plans; EPA QA/G-9: Guidance for the Data Quality Assessment: Practical Methods for Data Analysis; and EPA QA/G-4HW: Guidance for the Data Quality Objectives Process for Hazardous Waste Sites; and any other specific Regional Quality Assurance documents. This includes any and all future revisions to the documents described above. (See http://www.epa.gov/quality/qmps.html)

C. Develop and/or Review Analytical Methodologies:

The contractor shall provide technical support in the development and/or review of analytical methodologies, SOPs, and protocols, including technical specifications for new or non-CLP methods, and related QA activities. This shall require that the contractor perform research on specified topics, including search of literature in pertinent technical journals and publications, obtain information from the scientific communities, and access and download information from

the Internet . The contractor shall provide a report of its research, addressing all specified issues and presenting comments regarding the applicable analytical methods.

D. Review, Preparation, and Revision of Other Analytical and QA-Related Documents:

The contractor shall provide technical support to EPA in the review, development, and/or revision of QA-related documents as specified in WAs. These documents may include SOPs, procedural documents, scopes of work, operating guidelines, analytical summaries and tables, functional guidelines, and data validation manuals. The contractor shall conduct scientific and technical review on EPA SOPs, manuscripts, data compilations, review articles, technical papers prepared for journal publication, and scientific/technical products.

E: Additioanl QA Support:

The contractor shall perform the following other QA-related tasks:

1. Prepare and track of QC audit samples;

2. Evaluate specialized computer systems to be utilized to perform or support task-related activities, such as loading existing analytical data into EPA-supplied software and generating reports or conducting electronic data assessments/validation;

3. Develop and assess specialized sampling procedures at hazardous waste sites, e.g. in cases where established procedures are inadequate for the prescribed/indicated analytical protocol; and/or,

4. Review and assess field analytical and fixed laboratory confirmational data and split sampling data to determine data comparability.

F. Data Validation Review

The contractor shall perform data review for the Regional data validation oversight program. The PO or WAM will assign cases for review and specify the scope of review through TDFs. The contractor shall review the information in accordance with the SOPs and guidance defined in the WA to determine if the data validation report and accompanying documents are in accordance with the appropriate SOPs and guidance.

G. Technical Support to EPA for Laboratory/Field Review

The contractor shall provide technical support to the EPA in the review of CLP, non-CLP, PRP, and State laboratory performance in the analysis of samples for EPA environmental programs and in the review of PRP, State, and field contractor performance of field sampling/analytical activities. The contractor shall, if required, review and track applicable

documents and electronic media to determine if laboratory and/or field activities have been performed in accordance with EPA-approved requirements and specifications. The contractor shall, if required and approved in advance by the CO, provide on-site technical support to EPA at designated laboratories or sites.

H. Deliverables:

The contractor shall submit to the applicable WAM or PO documents prepared and a complete report of its review of documents and data performed under this task area (Task Area IV QA/QC Support), in the format specified in the work assignment. This may require the submission of electronic deliverables, data tables, notes of meetings and site visits, and research materials and/or references. The contractor may be required to summarize document revisions. At times, multiple copies of documents/deliverables may be required. The contractor shall revise and resubmit documents in accordance with EPA requirements specified in TDFs. The contractor shall comply with the requirements of the clause, SPECIAL REPORTING REQUIREMENT: REGULATORY ASSISTANCE, when preparing deliverables for this task.

TASK AREA V: OTHER TASK-RELATED ACTIVITIES

The contractor shall perform the following activities which are necessary to support EPA QA and analytical-related programs, consistent with this contract SOW:

A. Specialized Technical Training:

The contractor shall attend EPA-specific training required to perform work under this contract SOW. This may include training in EPA-specific computer systems and software, LIMS and Regional LAN systems and EPA-specific SOPs, protocols, and methodologies.

Contractor employees may be required to obtain EPA certification of proficiency prior to performing any work, for which EPA deems that such certification is necessary.

B. QA and Analytical Training:

The contractor shall provide training to EPA, States, other governmental agencies, and their contractors in clearly defined, task-related areas, such data review protocols, electronic data validation procedures, and QA guidance and processes. The contractor shall develop and prepare draft training materials and submit to the WAM, PO, or QA Officer for review and approval. Review comments must be incorporated into final training materials.

The contractor shall provide training to EPA personnel only for the purpose of transferring knowledge of a specific analytical or QA technique or technology obtained in the performance of work under this contract.

C. Attendance at Conferences and Meetings:

The contractor shall attend conferences or meetings in order to support specific assignments included in the SOW. During the conference the Contractor shall perform tasks such as give a technical presentation and obtain information necessary to perform tasks included in the SOW.

D. Implementation of Team Quality Assurance Program:

The contractor shall implement a Quality Assurance Program in accordance with its Quality Management Plan (QMP) and WA-specific Quality Assurance Project Plans (QAPPs) for each Region served by the contractor. The contractor shall submit a QMP to the PO, for review and approval by EPA. The QMP shall describe the contractor's organizational quality management policies, processes, roles and responsibilities, and be developed according to "EPA Requirements for Quality Management Plans" (EPA QA/R2). For WAs which involve the generation of environmental data, the contractor shall submit to the PO a QAPP as required by the WA. The QAPP shall be developed according to "EPA Requirements for Quality Assurance Project Plans" (EPA QA/R-5). The contractor shall incorporate in the QMP and QAPP any changes required for EPA approval. The contractor shall annually review, and if necessary update, the QMP to reflect any changes and provide a copy to the PO for approval. EPA Quality Assurance guidance documents are located at http://www.epa.gov/quality.

4. GENERAL REQUIREMENTS

EPA Regions are defined in the attachment entitled "EPA Regions".

The contractor is ultimately responsible for complying with all Federal, state, and local governmental work rules and regulations.

The contractor shall conform to the Environmental Management System (EMS) of the EPA Regional Laboratory or location of performance. The EPA EMS is described at www.epa.gov/ems/policy.

The contractor shall have knowledge of the National Environmental Laboratory Accreditation Conference (NELAC) requirements (http://www.epa.gpv/nerlesd1/land-sci-/nelac/index.html).

The contractor shall comply with the NELAC requirements.

The contractor shall transmit and receive certain information to and/or from various EPA programs and contractor organizations, such as: Sample Management Office (SMO); the Quality Assurance Technical Support (QATS); the organizations providing sample and data management and Quality Assurance support to the Analytical Services Branch (ASB); and Regional field sampling/analytical contractors. Contractor interaction with these activities will be determined by

the PO or CO in WAs. Such interaction is for the purpose of communicating information only and does not include providing direction to or receiving direction from other EPA offices or contractors.

Computer and computerized word processing systems provided by and used by the contractor in performance of this contract shall be compatible with EPA systems. Electronic deliverables shall be in a format compatible with the formats in place at the EPA Region requesting the deliverable.

ESAT ACRONYMS

AA - Atomic Absorption
ASB - Analytical Services Branch, OSRTI
ASTM - American Standard of Testing Methods
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CLP - Contract Laboratory Program
CO - Contracting Officer
CSF - Complete Sample Delivery Group File
CWA - Clean Water Act
DAT - Data Assessment Tool
DMA - Demonstrations of Methods Applicability
DNAPL - Dense Non-Aqueous Phase Liquids
DQO - Data Quality Objectives
EMAP - Environmental Monitoring and Assessment Program
EMS - Environmental Management Systems
EPA - U.S. Environmental Protection Agency
ESAT - Environmental Services Assistance Team
FASP - Field Analytical Support Program
FASTAC - Field and Analytical Services Teaming Advisory Committee
FIFRA - Federal Insecticide, Fungicide and Rodenticide Act
FRC - Federal Records Center
FRP - Federal Response Plans
GFAA - Graphite Furnace Atomic Absorption
GPS - Global Positioning Systems
HPLC - High Pressure Liquid Chromatography
IC - Ion Chromotography
ICP/AES - Inductively Coupled Plasma - Atomic Emission Spectrometry
ICP/MS - Inductively Coupled Plasma - Mass Spectrometry
GC - Gas Chromatography
GC/HRMS - Gas Chromatography/High Resolution Mass Spectrometry
GC/MS - Gas Chromatography/Mass Spectrometry
GC/PID - Gas Chromotography/Photo-Ionization Detector
GIS - Geographical Information System
LAN - Local Area Network
LIMS - Laboratory Information Management System
NAPL - Non-Aqueous Phase Liquids
NCP - National Contingency Plan
OSRTI - Office of Superfund Remediation and Technology Innovation
OSW - Office of Solid Waste
PCR- Polymerase Chain Reaction
PE - Performance Evaluation
PO - Project Officer
PRP - Potentially Responsible Party
QA - Quality Assurance

QAPP - Quality Assurance Project Plans
QA/QC - Quality Assurance/Quality Control
QATS - Quality Assurance Technical Support
QMP - Quality Management Plan
RAS - Routine Analytical Services
RCRA - Resource Conservation and Recovery Act
RQMP - Regional Quality Management Plans
RSCC - Regional Sample Control Center
SAP - Sampling and Analysis Plans
SDG - Sample Delivery Group
SEDD - Staged Elecetronic Data Deliverable
SIM - Selected Ion Monitoring
SMO - Sample Management Office
SOP - Standard Operating Procedure
SOW - Statement of Work
TD - Technical Direction
TDF - Technical Direction Form
TSCA - Toxics Substances Control Act
WA - Work Assignment
WAM - Work Assignment Manager